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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,041

09/27/2005

Kenzo Fukuda

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01/06/2009

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EXAMINER

SACKEY, EBENEZER O

ART UNIT

PAPER NUMBER

1624

MAIL DATE

DELIVERY MODE

01/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,041	Applicant(s) FUKUDA ET AL.	
	Examiner EBENEZER SACKEY	Art Unit 1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 7-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/03/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

Claims 1-16 are pending.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Information Disclosure Statement

Receipt of the Information Disclosure Statement filed on 02/03/06 is acknowledged and has been entered into the file. A signed copy of the 1449 is attached herewith.

Response to Restriction

Applicant's election with traverse of Group I, claims 1-6 in the reply filed on 10/10/08 is acknowledged. The traversal is on the ground(s) that Unity of invention has

not been considered with relation to Rule 6.4. This is not found persuasive because contrary to applicant's assertion, the three groups in the lack of unity mailed on 09/17/08 discloses three distinct inventions which cannot be considered to have any special technical features common to all. Note independent claim 1 discloses a process for preparing compounds of formula (3). Group II relates to the preparation of compounds of formula (I), an intermediate. And Group III relates to the isomerization of compounds of formula (3) or mixtures thereof. Thus, the three groups cannot be considered as having any special technical features to all.

Therefore, claims 7-16 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to non-elected subject matter.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. The consistent definition of Ar¹, Ar² and R¹ as "have meaning similar to the above" connotes no information as to what "similar" means.

2. In claims 5 and 6, line 1 respectively, the phrase "wherein is used" is idiomatic and therefore indefinite. The phrase appears to be a literal translation into English. Correction is required.

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

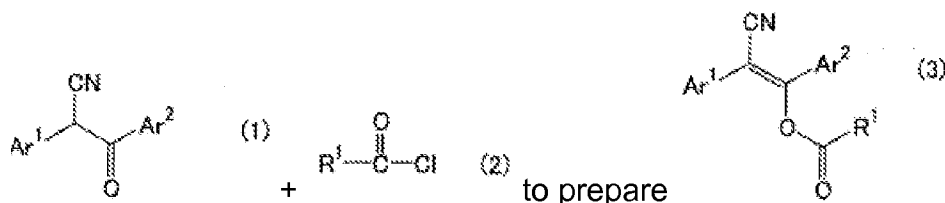
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyanagi et al., U.S. Patent number 6,187,944.

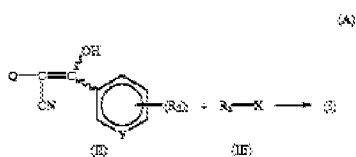
Applicants claim a process for preparing stereoselectively E-3-acyloxyacrylonitrile compound of formula (3), wherein 3-oxopropionitrile of formula (I) is reacted with an acid chloride of formula (2); substituents on the various formulae are as defined:



Determination of the scope and content of the prior art (MPEP §2141.01)

Koyanagi et al., disclose a process for preparing compounds similar to formula (3).

See the entire reference especially columns 5 and 6 respectively:



, see where R₁ is defined as (C=O)R₅, where R₅ is alkyl

which may be substituted.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the instant process and Koyanagi is that Koyanagi is silent on whether the compounds prepared are or either the E or Z isoform. Note however, that it is known in the art that one isomer of a racemic mixture is more active than the other. Additionally, with the use of similar reactants and solvents, it can be inferred that the E-isoform is present within the compounds of Koyanagi barring evidence to the contrary. Thus, a claim to one isomer of a known racemic mixture is not considered to be *inventive*, but rather *prima facie obvious*. Note also that compounds that are position isomers are expected to have similar properties. See for example *in re Crouse*, 150 U.S.P.Q. 554; *Ex parte Engelhardt*, 208 U.S.P.Q. 343; *In re Mehta*, 146 U.S.P.Q. 284; *In re Norris*, 84 U.S.P.Q. 458 and MPEP 2144.09 regarding position isomerism.

Finding of prima facie obviousness---rational and motivation (MPEP §2142-2143)

Thus, at the filing this application, one of ordinary skill in the art would have been

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motivated to prepare compounds so closely related to be homologous or isomeric or structural analogues of the reference compounds so as to be structurally obvious therefrom, or would be rendered obvious by the teachings of the reference, absent of any unobvious properties especially since the skilled artisan would expect compounds so closely related structurally to have similar properties. Accordingly, the instantly claimed process would have been suggested to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (571) 272-0704. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson, can be reached on (571) 272-0661. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

EOS

**/James O. Wilson/
Supervisory Patent Examiner, Art Unit 1624**